

HORIZONTAL BORING MILL  
**DBC 130L**  
MACHINE SPEC. SELECTION SHEET

**1. TRAVEL**

ITEM		UNIT	SPECIFICATION	SELECTION
STROKE	X-axis	mm	4,000	DEFAULT
	Y-axis	mm	2,500	
	Z-axis	mm	2,000	
	W-axis	mm	700	
SPINDLE NOSE TO TABLE CENTER		mm	750 ~ 2,750	
SPINDLE CENTER TO TABLE TOP		mm	0 ~ 2,500	

**2. DIVIDING TABLE**

ITEM			UNIT	SPECIFICATION		SELECTION	
CAPACITY	TABLE SIZE (WIDTH X LENGTH)	LOAD CAPACITY	mm, kg	1,600 × 1,800	MAX. 15,000	STD.	SELECTIVE
			mm, kg	1,800 × 2,000	MAX. 14,000	OPT.	
			mm, kg	2,000 × 2,200	MAX. 13,000	OPT.	
			mm, kg	1,800 × 2,000	MAX. 20,000	OPT.	
			mm, kg	2,000 × 2,200	MAX. 19,000	OPT.	
	MAX. WORKPIECE SIZE	DIAMETER	mm	MAX. Ø2,400 [Ø3,300 <sup>(*)</sup> ]		DEFAULT	
T-SLOT×NUMBERS			mm	24H8 × 9		DEFAULT	
EDGE LOCATOR(TABLE) <sup>(1)</sup>			ea	4		OPT.	SELECTIVE
MAX. ROTATING SPEED			r/min	1		DEFAULT	
LEAST COMMAND INCREMENT			deg.	0.001°			
INDEX DEGREE BY PIN			deg.	90°			
AUTOMATIC TABLE CLAMPING UNIT			-	HYDRAULIC			
B-AXIS ROTARY ENCODER			-	360°			

<sup>(\*)</sup> : IN CASE OF THE LARGEST TABLE OPTION AS 2,000×2,200, IT WILL BE CHANGED.

**3. SPINDLE HEAD**

ITEM	UNIT	SPECIFICATION	SELECTION	
SPINDLE DIAMETER	mm	Ø130	DEFAULT	
MILLING SPINDLE DIAMETER	mm	Ø240		
SPINDLE DRIVE MOTOR (30 min./cont. rating)	kW	26 / 22	STD.	SELECTIVE
	kW	30(15min.) / 22 <sup>(1)</sup>	OPT.	
SPINDLE SPEED	r/min	2,500	DEFAULT	
NUMBER OF SPEED RANGES	-	3 STEPS		
MAX. TORQUE	N·m	3,357		
TOOL CLAMPING FORCE	N	26,460		
SPINDLE AIR PURGE	-	COLLET AIR		
TOOL SHANK	-	ISO #50 7/24 TAPER	STD.	SELECTIVE
	-	BIG PLUS	OPT.	
PULL STUD	-	MAS403-P50T-1(45°)	STD.	SELECTIVE
	-	CAT 50 (Modified BT Type)	OPT.	
	-	DIN 69872 #50	OPT.	

**4. AXIS SYSTEM**

ITEM		UNIT	SPECIFICATION	SELECTION
RAPID TRAVERSE		mm/min	10,000[7,000 <sup>(*)</sup> ] / 8,000 / 10,000 / 10,000	DEFAULT
MAX. CUTTING FEEDRATE		mm/min	4,000	
BALL SCREW(DIAMETER X LEAD)		mm	Ø80×P12 / Ø70×P12 / Ø70×P12 / Ø50×P10	
FEED MOTOR		kW	AC 9.0 / 9.0 / 9.0 / 4.0 / 7.0	
AXIS GEAR BOX REDUCTION RATIO		X / Y / Z / W-axis	2 / 3 / 2 / 2	
		B-axis	1,440[1,584 <sup>(*)</sup> ]	
FEEDBACK SYSTEM		X / Y / Z / W-axis	INC. PULSE CODER	
		B-axis	ROTARY ENCODER	
POSITIONING ACCURACY		X / Y / Z / W-axis	±0.01 / FULL STROKE	
		B-axis	±15" & AT EACH 90° : ±5"	
REPEATABILITY		mm	±0.005	

<sup>(\*)</sup> : IN CASE OF HIGHER LOAD CAPACITY, IT WILL BE CHANGED.

Specifications are subject to change without prior notice.

## 5. GENERAL SPECIFICATION

ITEM		UNIT	SPECIFICATION	SELECTION	
POWER UNIT	TANK CAPACITY	L	90	DEFAULT	
	MOTOR CAPACITY	kW	3.7		
	OPERATING PRESSURE	Mpa	5.5		
	COOLING SYSTEM	-	RADIATOR TYPE		
	MAX. FLOWRATE	L/min	37.5		
LUBRICATION DEVICE	TANK CAPACITY	L	45	DEFAULT	
	PUMP MOTOR POWER	kW	0.057 x 2 EA		
	DISCHARGE PRESSURE	Mpa	1.7		
	DISCHARGE VOLUME	L/min	0.15		
COMPRESSED AIR	PRESSURE	Mpa	0.54	DEFAULT	
	CONSUMPTION	NL/min	520		
SPINDLE OIL COOLER	TANK CAPACITY	L	120	DEFAULT	
	COOLING CAPABILITY	kW	10.5		
CHIP DISPOSAL (IN MACHINE TO TANK)	HINDED BELT	SET	0.4 kW	DEFAULT	
ELECTRIC SOURCE	MAIN POWER	-	3Ph.-AC 220 V / 60 Hz	DEFAULT	
	POWER CAPACITY	kVA	70		
FLOOR SPACE	LENGTH × WIDTH	mm	7,800 × 9,400	DEFAULT	
MACHINE HEIGHT		mm	5,400		
MACHINE WEIGHT		kg	48,000		
MACHINE COLOR		-	DOOSAN INFRACORE NEW 4 TONE COLOR	STD.	SELECTIVE
		-	USER DEFINED MACHINE COLOR	OPT.	

## 6. STANDARD ACCESSORIES

ITEM		UNIT	SPECIFICATION	SELECTION	
SLIDEWAY COVERS (X / Z-axis)		SET	1	DEFAULT	
COLUMN GUIDEWAY COVER(Y-axis)		SET	1		
Y-axis CLAMP		SET	1		
W-axis CLAMP		SET	1		
SPINDLE ORIENTATION		SET	POSITION CODER		
PORTABLE MPG		SET	1		
MAIN OP. PANEL(2-LINKAGE TYPE)		SET	1		
ORERATOR'S CALL LAMP(RED / YELLOW / GREEN)		SET	1		
Z AXIS COOLANT PAN		SET	1		
TABLE CHIP PAN		SET	1		
WORK LIGHT (HALOGEN LAMP)		SET	1		
FOOT SWITCH FOR TOOL UNCLAMP		SET	1		
TOOL KIT		SET	1		
CUSTOMER'S MANUAL		SET	1		

## &lt;Note&gt;

1. SPECIFICATION MARKED BY '(1)' SHOULD BE REVIEWED IN DETAIL BEFORE CONTRACT.
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**7. ATC**

ITEM		UNIT	SPECIFICATION	SELECTION	
TOOL STORAGE CAPACITY		ea	40	OPT.	SELECTIVE
		ea	60	OPT.	
		ea	90	OPT.	
TOOL SHANK		-	MAS403 BT 50 / CT50 / DIN69871 A 50	OPT.	SELECTIVE
PULL STUD		-	MAS403-P50T-1(45°)	OPT.	SELECTIVE
		-	CAT 50 (Modified BT Type)	OPT.	
		-	DIN 69872 #50	OPT.	
TOOL SELECTION TYPE		-	FIXED ADDRESS	DEFAULT	
MAX. TOOL DIAMETER		mm	φ130(CONT.), φ250(ADJACENT BOTH-SIDE 1POT EMPTY)	STD.	SELECTIVE
		mm	φ600(ADJACENT BOTH-SIDE 2POT EMPTY)	OPT.	
MAX. TOOL LENGTH		mm	600	DEFAULT	
MAX. TOOL WEIGHT		kg	25	STD.	SELECTIVE
		kg	30	OPT.	
MAX. TOOL MOMENT		N·m	34.3	DEFAULT	
ATC DRIVEN (MAGAZINE ROTATION & CARRIAGE MOVEMENT)		TYPE	SERVO MOTOR		
TOOL CHANGING TIME	T-T-T	sec.	20		
	C-T-C	sec.	30		
ATC SAFETY FENCE		SET	1		
ATC OP. PANEL		-	PORTABLE		

**8. APC**

ITEM		UNIT	SPECIFICATION	SELECTION	
NUMBER OF PALLETS		ea	2	DEFAULT	
APC TYPE		-	PARALLEL SHUTTLE (Z-DIRECTION)		
PALLET SIZE (WIDTH×LENGTH)		mm	1,600 × 1,600		
MAX. WORKPIECE WEIGHT		kg	7,500		
T-SLOT x NUMBERS		mm	22H8 x 9		
RAISING BLOCK		mm	250		

**9. FEEDBACK SYSTEM**

ITEM		UNIT	SPECIFICATION	SELECTION	
LINEAR SCALE FEEDBACK SYSTEM	ABSOLUTE TYPE	SET	X / Y / Z-axis	OPT.	SELECTIVE

**10. COOLANT SYSTEMS & CHIP DISPOSAL**

ITEM		UNIT	SPECIFICATION	SELECTION	
COOLANT SYSTEMS	COOLANT SYSTEM 680 L	SET	1.5 kW, 0.49 Mpa, 60 mesh, 30 L/min	OPT.	SELECTIVE
	TSC 20 bar	SET	1	OPT.	
	COOLANT SPRAY GUN	SET	1	OPT.	
	HIGH CAPACITY TYPE COOLANT PUMP	SET	1	OPT.	
	OIL SKIMMER	SET	BELT TYPE	OPT.	
CHIP DISPOSAL (FROM COOLANT TANK TO CHIP BUCKET)	HINGED BELT	SET	0.4 kW	OPT.	SELECTIVE
	MAGNETIC SCRAPER	SET	0.4 kW	OPT.	
CHIP BUCKET		L	360	OPT.	SELECTIVE

**11. SAFETY GUARD**

ITEM		UNIT	SPECIFICATION	SELECTION	
COOLANT SPLASH GUARD	SEMI TYPE	—	TABLE ON COVER W/O ROOF COVER	OPT.	SELECTIVE
	SEMI TYPE	—	TABLE ON COVER W/H AUTO DOOR	OPT.	
SAFETY FENCES & INTERLOCK SWITCHES		—	ENCLOSE THE MACHINE WITH FENCES	OPT.	

**12. ADDITIONAL 6th AXIS**

ITEM		UNIT	SPECIFICATION	SELECTION	
ADDITIONAL 6th AXIS <sup>(1)</sup>	PACKAGE #1	-	ONLY WIRING	OPT.	SELECTIVE
	PACKAGE #2	-	PACKAGE #1 + PIPING + AMP	OPT.	

**13. PUEUMATIC**

ITEM		UNIT	SPECIFICATION	SELECTION	
AIR	CHIP AIR BLOW	SET	1	OPT.	SELECTIVE
	AIR SPRAY GUN	SET	1	OPT.	
	MQL	SET	1	OPT.	
	AIR DRYER	SET	1	OPT.	
	AIR COMPRESSOR	SET	1	OPT.	

**14. ATTACHMENT & FIXTURE**

ITEM			UNIT	SPECIFICATION	SELECTION	
MANUAL TYPE	90° ANGLE HEAD	LENGTH	mm	365 (1,000 r/min)	OPT.	SELECTIVE
			mm	660 (1,000 r/min)	OPT.	
	UNIVERSAL HEAD	LENGTH	mm	500 (1,500 r/min)	OPT.	
	FACE PLATE	DIAMETER	mm	Ø650 (STROKE : 150 )	OPT.	
	SPINDLE SUPPORT	LENGTH	mm	310 (1,000 r/min)	OPT.	
INDEXABLE ANGLE HEAD(90° INDEX)		LENGTH	mm	730 (1,000 r/min)	OPT.	SELECTIVE
FACING HEAD <sup>(1)</sup> (NC TYPE)	ATTACHMENT READY	MAKER	-	COGSDILL	OPT.	SELECTIVE
		MAKER	-	D'Andrea	OPT.	
	NC CONTOURING HEAD	MAKER	-	COGSDILL	OPT.	SELECTIVE
		MAKER	-	D'Andrea	OPT.	
FIXTURE	ANGLE PLATE	L × W × H	mm	450 × 600 × 400	OPT.	SELECTIVE
			mm	500 × 1,000 × 550	OPT.	
			mm	750 × 1,250 × 750	OPT.	
			mm	1,000 × 2,000 × 1,000	OPT.	

**15. MEASUREMENT**

ITEM		UNIT	SPECIFICATION	SELECTION	
TOOL SETTING GUIDE	AUTO. TOOL LENGTH MEASUREMENT	SET	RENISHAW / TS27R	OPT.	SELECTIVE
WORK SETTING GUIDE	AUTO. WORKPIECE MEASUREMENT	SET	RENISHAW / TS27R	OPT.	SELECTIVE
TEST BAR		ea	ISO #50	OPT.	SELECTIVE

**16. OTHERS**

ITEM		UNIT	SPECIFICATION	SELECTION	
3-MPG	STAND TYPE	-	3-axes CONTROL (X,Y,Z)	OPT.	SELECTIVE
	PORTABLE TYPE	-	3-axes CONTROL (X,Y,Z)	OPT.	
RAISING BLOCK		mm	250	OPT.	SELECTIVE
SPINDLE THERMAL COMPENSATION SYSTEM(Z-axis)		SET	1	OPT.	SELECTIVE

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